CLAIM AMENDMENTS

This listing of claims will replace all prior versions, and listings, of claims in the application.

Listing of Claims:

1 (currently amended). A frequency-synchronizing method in a wireless communications system, which comprises:

communicating between a mobile unit and a stationary base station over a defined number of frequencies;

transmitting a message containing a code identifying the base station during a time slot within a time frame;

deriving a key from the identification code;

specifying a defined number of different, unique frequency sequences each containing all the frequencies of the defined number of frequencies;

setting the defined number of different, unique frequency sequences to be 40 frequency sequences, and calculating the frequency sequence with the following algorithm: $f_{x+1}=$ $\mathrm{mod}(75[f_x+ Y])$; Y = 1, 2, 4, 7, 8, 11, 13, 14, 16,..., 68, 71, 73, 74; wherein f_x is a frequency in the frequency sequence;

assigning one of the frequency sequences to the key and selecting the one frequency sequence with the key; and

consecutively changing to the frequencies contained in the assigned frequency sequence in the defined sequence by the base station and the associated mobile unit.

2 (original). The method according to claim 1, which comprises calculating each of the frequency sequences with different algorithms, and thereby determining each subsequent frequency on a basis of an immediately preceding frequency.

3 (canceled).

4 (currently amended). ~~The method according to claim 1, wherein~~ A frequency-synchronizing method in a wireless communications system, which comprises:

communicating between a mobile unit and a stationary base station over a defined number of frequencies;

transmitting a message containing a code identifying the base station during a time slot within a time frame;

deriving a key from the identification code;

specifying a defined number of different, unique frequency sequences each containing all the frequencies of the defined number of frequencies, each frequency sequence ~~has~~ having several different, unique ~~subfrequency sequences~~ frequency subsequences specified by subkeys derived from the message ~~identification signal~~;

assigning one of the frequency sequences to the key and selecting the one frequency sequence with the key; and

consecutively changing to the frequencies contained in the assigned frequency sequence in the defined sequence by the base station and the associated mobile unit.

5 (currently amended). The method according to claim 4, which comprises, once a frequency subsequence ~~subfrequency sequence~~ has been run through completely, using another frequency subsequence ~~subfrequency sequence~~.

6 (original). The method according to claim 1, which comprises retaining a frequency for a defined number of time frames before changing the frequency, and transmitting an item of information specifying how many times a current frequency will be used for transmission.

7 (original). The method according to claim 1, which comprises, in the mobile unit, checking the message transmitted from the base station for errors, and adopting the receiver key and make a frequency change only after an error-free message is received.

8 (original). A configuration for synchronizing a frequency between a base station and a mobile unit each configured to implement the method according to claim 1, the configuration comprising a frequency-change computation unit provided in the base station and in the mobile unit, a key register for storing the key, and a frequency register defining a current frequency, said frequency-change computation unit having an input receiving the contents of said key register and the contents of said frequency register, and having an output connected to said frequency register.

9 (original). The configuration according to claim 8, which comprises an update register controlled by a time-frame counter connected between said frequency register and said output of said frequency-change computation unit.

10 (new). A configuration for synchronizing a frequency between a base station and a mobile unit each configured to

implement the method according to claim 4, the configuration comprising a frequency-change computation unit provided in the base station and in the mobile unit, a key register for storing the key, and a frequency register defining a current frequency, said frequency-change computation unit having an input receiving the contents of said key register and the contents of said frequency register, and having an output connected to said frequency register.

11 (new). The configuration according to claim 10, which comprises an update register controlled by a time-frame counter connected between said frequency register and said output of said frequency-change computation unit.

12 (new). A configuration for synchronizing a frequency between a base station and a mobile unit, the configuration comprising:

a key register for storing a key;

a frequency register defining a current frequency; and

a frequency-change computation unit provided in the base station and in the mobile unit, said frequency-change computation unit having an input receiving contents of said

key register and contents of said frequency register, and having an output connected to said frequency register;

said configuration programmed to:

communicate between the mobile unit and the base station over a defined number of frequencies;

transmit a message containing a code identifying the base station during a time slot within a time frame;

derive the key from the identification code;

specify a defined number of different, unique frequency sequences each containing all the frequencies of the defined number of frequencies;

set the defined number of different, unique frequency sequences to be 40 frequency sequences, and calculate the frequency sequence with the following algorithm: f_{x+1}= mod(75[f_x+ Y]); Y = 1, 2, 4, 7, 8, 11, 13, 14, 16,..., 68, 71, 73, 74; wherein f_x is a frequency in the frequency sequence;

assign one of the frequency sequences to the key and select the one frequency sequence with the key; and

consecutively change to the frequencies contained in the assigned frequency sequence in the defined sequence by the base station and the associated mobile unit.

13 (new). A configuration for synchronizing a frequency between a base station and a mobile unit, the configuration comprising:

a key register for storing a key;

a frequency register defining a current frequency; and

a frequency-change computation unit provided in the base station and in the mobile unit, said frequency-change computation unit having an input receiving contents of said key register and contents of said frequency register, and having an output connected to said frequency register;

said configuration programmed to:

communicate between the mobile unit and the base station over a defined number of frequencies;

transmit a message containing a code identifying the base station during a time slot within a time frame;

derive the key from the identification code;

specify a defined number of different, unique frequency sequences each containing all the frequencies of the defined number of frequencies, each frequency sequence having several different, unique frequency subsequences specified by subkeys derived from the message;

assign one of the frequency sequences to the key and select the one frequency sequence with the key; and

consecutively change to the frequencies contained in the assigned frequency sequence in the defined sequence by the base station and the associated mobile unit.